

## I. AMENDMENT

### **In the Claims:**

Please amend claims 8, 9, 10, 12, 16, 17, 20, 21, 22, 23, 24, 25, 26, 28 and 29. Please add new claims 52-84.

1-7. (Cancelled)

8. (Currently Amended) An aerial dispersion system configured for use with a host aircraft, comprising:

two ~~one~~ or more modular aerial dispersant holding tanks configured to be sequentially loaded into said fixed wing host aircraft and coupled together within said fixed wing host aircraft to provide a dispersant material flow path configured as pseudo cargo containers;

a dispersal regulator configured to be coupled to said one or more aerial dispersant holding tanks; and

an airborne dispersal device configured to be coupled to said dispersal regulator;

wherein said host aircraft is a fixed wing aircraft; and

aerial dispersant holding tanks are configured with a shape and outer dimensions that correspond to dimensions of a cargo container employed in the side-loading cargo system of said fixed wing host aircraft, or wherein said one or more modular aerial dispersant holding tanks are configured for installation and removal from an aircraft passenger compartment of said fixed wing host aircraft through a passenger door opening of said fixed wing host aircraft.

9. (Currently Amended) The aerial dispersion system of claim 8, wherein said aerial dispersant holding tanks are configured with a shape and outer dimensions that correspond to dimensions of a cargo container employed in the side-loading cargo system of said host aircraft ~~aerial dispersant holding tanks are configured as pseudo cargo containers that are compatible with a side-loading aircraft cargo system.~~

10. (Currently Amended) The aerial dispersion system of claim 8, wherein said aerial dispersant holding tanks are configured with a shape and dimensions for installation in a passenger compartment of said host aircraft through a passenger door opening of said fixed wing host aircraft ~~aerial dispersant holding tanks are configured as pseudo cargo containers that are configured for installation and removal from an aircraft passenger compartment.~~

11. (Original) The aerial dispersion system of claim 8, wherein each of said aerial dispersant holding tanks comprises at least one flow opening on a first end of said holding tank, said first flow opening being configured to sealably mate with a flow opening of an adjacent aerial dispersant holding tank when two or more of said aerial dispersant tanks are positioned in adjacent end-to-end relationship within the baggage or cargo hold of a host aircraft.

12. (Currently Amended) The aerial dispersion system of claim 8, wherein a first one of said aerial dispersant holding tanks is configured to be coupled to at least a second one of said aerial dispersant holding tanks to provide a dispersant material flow path from said first aerial dispersant holding tank to said second aerial dispersant holding tank when said first and second aerial dispersant tanks are positioned in adjacent front end-to-rear end relationship within the baggage or cargo hold of a host aircraft.

13. (Original) The aerial dispersion system of claim 8, wherein said dispersal regulator comprises at least a part of a dispersal equipment container or a dispersal equipment pallet.

14. (Original) The aerial dispersion system of claim 8, wherein said dispersal regulator comprises a pump.

15. (Original) The aerial dispersion system of claim 12, wherein at least one of said first or second aerial dispersant tanks comprises flow control equipment configured to control flow of materials from said first aerial dispersant holding tank to said second aerial dispersant holding tank.

16. (Currently Amended) The aerial dispersion system of claim 8, further comprising a cargo door ~~pseudo-cargo door~~ configured to be removably disposed within a cargo opening of said host aircraft; and wherein said airborne dispersal device is configured to be coupled to said dispersal regulator through said cargo door ~~pseudo-cargo door~~.

17. (Currently Amended) The aerial dispersion system of claim 8, further comprising a passenger door ~~pseudo-passenger door~~ configured to be removably disposed within a passenger door opening of said host aircraft; and wherein said airborne dispersal device is configured to be coupled to said dispersal regulator through said passenger door ~~pseudo-passenger door~~.

18. (Original) The aerial dispersion system of claim 8, wherein said one or more aerial dispersant holding tanks comprise a material containment subsystem; wherein said dispersal regulator comprises a material dispersal subsystem; and wherein said aerial dispersion system further comprises a control subsystem configured to be coupled to said material containment subsystem and said material dispersal subsystem.

19. (Original) The aerial dispersion system of claim 18, further comprising a navigation subsystem, a communications subsystem, and a sensor subsystem; wherein said navigation subsystem, communications subsystem, and sensor subsystem are configured to be coupled to said control subsystem; and wherein said control subsystem, said navigation subsystem and said communications subsystem are configured to be coupled to one or more systems of a host aircraft.

20. (Currently Amended) A method of converting a host aircraft for aerial dispersion purposes, comprising removably installing the aerial dispersion system of claim 8 on a host fixed wing aircraft.

21. (Currently Amended) An aerial dispersion method, comprising removably installing the aerial dispersion system of claim 8 on a host fixed wing aircraft to form an aircraft-based material dispersion system; and aerially dispersing a material from said aircraft-based material dispersion system.

22. (Currently Amended) An aircraft-based material dispersion system, comprising:

a fixed wing host aircraft;

two ~~one~~ or more modular aerial dispersant holding tanks sequentially disposed within said fixed wing host aircraft, said two or more modular aerial dispersant holding tanks being coupled together within said fixed wing host aircraft to provide a dispersant material flowpath ~~said aerial dispersant holding tanks being configured as pseudo cargo containers;~~

a dispersal regulator disposed on said host aircraft and coupled to said two ~~one~~ or more aerial dispersant holding tanks; and

an airborne dispersal device disposed on said host aircraft and coupled to said dispersal regulator;

wherein said two or more aerial dispersant holding tanks are disposed within a baggage or cargo hold of said fixed wing host aircraft and are configured to be compatible with a side-loading aircraft cargo system of said fixed wing host aircraft, or wherein said two or more aerial dispersant holding tanks are disposed within a passenger compartment of said fixed wing host aircraft and are configured for installation and removal from an aircraft passenger compartment of said fixed wing host aircraft through a passenger door opening of said fixed wing host aircraft.

23. (Currently Amended) The aircraft-based material dispersion system of claim 22, ~~wherein said host aircraft has a side-loading cargo system; and~~ wherein said two ~~one~~ or more aerial dispersant holding tanks are configured as ~~pseudo-cargo containers that are to be~~ removably disposed within a said baggage or cargo hold of said host aircraft using said side-loading cargo system of said host aircraft.

24. (Currently Amended) The aircraft-based material dispersion system of claim 22, ~~wherein said host aircraft has at least one passenger door for access to a passenger compartment of said aircraft; and~~ wherein said two ~~one~~ or more aerial dispersant holding tanks are configured as ~~pseudo-cargo containers that are to be~~ removably disposed within a passenger compartment of said host aircraft through said passenger door opening.

25. (Currently Amended) The aircraft-based material dispersion system of claim 23, wherein said system comprises two or more of said aerial dispersant holding tanks coupled together and

removably disposed in adjacent front end-to-rear end relationship within said baggage or cargo hold of said host aircraft.

26. (Currently Amended) The aircraft-based material dispersion system of claim 24, wherein said system comprises two or more of said aerial dispersant holding tanks coupled together and removably disposed in adjacent front end-to-rear end relationship within said passenger compartment of said host aircraft.

27. (Original) The aircraft-based material dispersion system of claim 25, further comprising flow control equipment coupled to at least one of said aerial dispersant holding tanks and configured to control flow of materials between two or more of said aerial dispersant holding tanks.

28. (Currently Amended) The aircraft-based material dispersion system of claim 25, further comprising a cargo door ~~pseudo-cargo door~~ removably disposed within a cargo opening of said host aircraft; and wherein said airborne dispersal device is coupled to said dispersal regulator through said cargo door ~~pseudo-cargo door~~.

29. (Currently Amended) The aircraft-based material dispersion system of claim 26, further comprising a passenger door ~~pseudo-passenger door~~ removably disposed within a passenger door opening of said host aircraft; and wherein said airborne dispersal device is coupled to said dispersal regulator through said passenger door ~~pseudo-cargo door~~.

30. (Original) The aircraft-based material dispersion system of claim 23, wherein said dispersal regulator and said airborne dispersal device are removably installed on said host aircraft.

31. (Original) The aircraft-based material dispersion system of claim 22, wherein said ~~two~~ one or more aerial dispersant holding tanks comprise a material containment subsystem; wherein said dispersal regulator comprises a material dispersal subsystem; and wherein said aerial dispersion system further comprises a control subsystem coupled to said material containment subsystem and said material dispersal subsystem.

32. (Original) The aircraft-based material dispersion system of claim 31, further comprising a navigation subsystem, a communications subsystem, and a sensor subsystem; wherein said navigation subsystem, communications subsystem, and sensor subsystem are coupled to said control subsystem; and wherein said control subsystem, said navigation subsystem and said communications subsystem are coupled to one or more systems of said host aircraft.

33. (Original) An aerial dispersion method, comprising aurally dispersing one or more materials from the aircraft-based material dispersion system of claim 22.

34. (Original) An aerial dispersion method, comprising aurally dispersing one or more materials in a coordinated manner from a fleet of aircraft-based material dispersion systems of claim 22.

35. (Original) The aircraft-based material dispersion system of claim 22, wherein said host aircraft comprises a wide body aircraft.

36-51. (Cancelled)

52. (New) The aerial dispersion system of claim 8, wherein said host aircraft comprises a wide body aircraft.

53. (New) The aerial dispersion method of claim 20, wherein said host aircraft comprises a wide body aircraft; and wherein said method further comprises removably installing the aerial dispersion system of claim 8 on said host fixed wing aircraft to temporarily convert said host aircraft for aerial dispersion purposes.

54. (New) The aerial dispersion method of claim 20, wherein said host aircraft comprises a commercial passenger or cargo plane.

55. (New) The aerial dispersion method of claim 21, further comprising installing at least first and second aerial dispersant holding tanks into a baggage or cargo hold of said host fixed wing aircraft by slidably or rollably transporting said first and second aerial dispersant holding tanks within said baggage or cargo hold in a forward or rearward direction parallel to the longitudinal axis of the aircraft fuselage; and stacking said first and second aerial dispersant holding tanks in adjacent front end-to-rear end relationship within said baggage or cargo hold of said host aircraft.

56. (New) The aerial dispersion method of claim 21, wherein said method comprises aerially dispersing said material from said aircraft-based material dispersion system to suppress a fire.

57. (New) The aircraft-based material dispersion system of claim 22, wherein said host aircraft comprises a commercial passenger or cargo plane.



58. (New) The aircraft-based material dispersion system of claim 23, wherein said two or more aerial dispersant holding tanks are configured with a shape and outer dimensions that correspond to dimensions of a cargo container employed in said side-loading cargo system of said host aircraft.

59. (New) The aerial dispersion method of claim 33, wherein said method comprises aurally dispersing said one or more materials from said aircraft-based material dispersion system to suppress a fire.

60. (New) The aerial dispersion method of claim 34, wherein said method comprises aurally dispersing said one or more materials from said fleet of aircraft-based material dispersion systems to suppress a fire.

61. (New) The aircraft-based material dispersion system of claim 58, wherein said two or more aerial dispersant holding tanks are disposed and stacked in end to end manner within said baggage or cargo hold of said host aircraft in a direction parallel to the longitudinal axis of the fuselage of said aircraft.

62. (New) The aircraft-based material dispersion system of claim 61, wherein said two or more aerial dispersant holding tanks are disposed within said baggage or cargo hold of said host aircraft upon a surface configured to allow said cargo containers to be slidably or rollably transported forward or rearward in a direction parallel to the longitudinal axis of said aircraft fuselage.

63. (New) The aircraft-based material dispersion system of claim 52, wherein said host aircraft has a gross carrying capacity of greater than or equal to about 100,000 pounds.

64. (New) An aircraft-based material dispersion system, comprising:

a wide body host aircraft;

two or more aerial dispersant holding tanks disposed within said wide body host aircraft,  
said aerial dispersant holding tanks being configured as cargo containers;

a dispersal regulator disposed on said wide body host aircraft and coupled to said two or  
more aerial dispersant holding tanks; and

an airborne dispersal device disposed on said wide body host aircraft and coupled to said  
dispersal regulator.

65. (New) The aircraft-based material dispersion system of claim 64, wherein said wide body  
host aircraft has a gross carrying capacity of greater than or equal to about 100,000 pounds.

66. (New) The aerial dispersion method of claim 65, wherein said wide body host aircraft  
comprises a wide body passenger or cargo plane.

67. (New) The aircraft-based material dispersion system of claim 64, wherein said wide body  
host aircraft has a side-loading cargo system; and wherein said two or more aerial dispersant  
holding tanks are configured as cargo containers that are removably disposed within a baggage  
or cargo hold of said host aircraft using said side-loading cargo system of said host aircraft.

68. (New) The aircraft-based material dispersion system of claim 64, wherein said wide body  
host aircraft has at least one passenger door opening for access to a passenger compartment of  
said aircraft; and wherein said two or more aerial dispersant holding tanks are configured as

cargo containers that are removably disposed within a passenger compartment of said wide body host aircraft through said passenger door opening.

69. (New) The aircraft-based material dispersion system of claim 67, wherein said system comprises two or more of said aerial dispersant holding tanks coupled together and removably disposed in adjacent front end-to-rear end relationship within said baggage or cargo hold of said wide body host aircraft.

70. (New) The aircraft-based material dispersion system of claim 68, wherein said system comprises two or more of said aerial dispersant holding tanks coupled together and removably disposed in adjacent front end-to-rear end relationship within said passenger compartment of said wide body host aircraft.

71. (New) The aircraft-based material dispersion system of claim 69, further comprising flow control equipment coupled to at least one of said aerial dispersant holding tanks and configured to control flow of materials between two or more of said aerial dispersant holding tanks.

72. (New) The aircraft-based material dispersion system of claim 69, further comprising a cargo door removably disposed within a cargo opening of said wide body host aircraft; and wherein said airborne dispersal device is coupled to said dispersal regulator through said cargo door.

73. (New) The aircraft-based material dispersion system of claim 70, further comprising a passenger door removably disposed within a passenger door opening of said wide body host aircraft; and wherein said airborne dispersal device is coupled to said dispersal regulator through said cargo door.

74. (New) The aircraft-based material dispersion system of claim 67, wherein said dispersal regulator and said airborne dispersal device are removably installed on said wide body host aircraft.

75. (New) The aircraft-based material dispersion system of claim 64, wherein said two or more aerial dispersant holding tanks comprise a material containment subsystem; wherein said dispersal regulator comprises a material dispersal subsystem; and wherein said aerial dispersion system further comprises a control subsystem coupled to said material containment subsystem and said material dispersal subsystem.

76. (New) The aircraft-based material dispersion system of claim 75, further comprising a navigation subsystem, a communications subsystem, and a sensor subsystem; wherein said navigation subsystem, communications subsystem, and sensor subsystem are coupled to said control subsystem; and wherein said control subsystem, said navigation subsystem and said communications subsystem are coupled to one or more systems of said wide body host aircraft.

77. (New) An aerial dispersion method, comprising aerially dispersing one or more materials from the aircraft-based material dispersion system of claim 64.

78. (New) The aerial dispersion method of claim 77, wherein said method comprises aerially dispersing said one or more materials from said aircraft-based material dispersion system to suppress a fire.

79. (New) An aerial dispersion method, comprising aerially dispersing one or more materials in a coordinated manner from a fleet of aircraft-based material dispersion systems of claim 64.

80. (New) The aerial dispersion method of claim 79, wherein said method comprises aerially dispersing said one or more materials from said fleet of aircraft-based material dispersion systems to suppress a fire.

81. (New) The aircraft-based material dispersion system of claim 64, wherein said host aircraft comprises a commercial passenger or cargo plane.

82. (New) The aircraft-based material dispersion system of claim 67, wherein said two or more aerial dispersant holding tanks are configured with a shape and outer dimensions that correspond to dimensions of a cargo container employed in said side-loading cargo system of said host aircraft.

83. (New) The aircraft-based material dispersion system of claim 82, wherein said two or more aerial dispersant holding tanks are disposed and stacked in end to end manner within said baggage or cargo hold of said host aircraft in a direction parallel to the longitudinal axis of the fuselage of said aircraft.

84. (New) The aircraft-based material dispersion system of claim 83, wherein said two or more aerial dispersant holding tanks are disposed within said baggage or cargo hold of said host aircraft upon a surface configured to allow said cargo containers to be slidably or rollably transported forward or rearward in a direction parallel to the longitudinal axis of said aircraft fuselage.